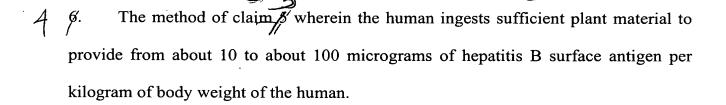
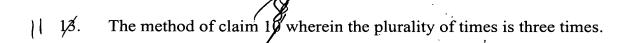
## WHAT IS CLAIMED IS:

- 1. A method for providing an immune response to hepatitis B surface antigen (HBsAg), in an animal made immunoreceptive to HBsAg, by feeding the immunoreceptive animal with a substance comprising a physiologically acceptable plant material containing hepatitis B surface antigen.
- 2. The method of claim 1 wherein the animal is made immunoreceptive to HBsAg by feeding the substance to the animal in conjunction with an adjuvant that renders the animal immunoreceptive to HBsAg.
- 3. The method of claim 1 wherein the animal is made immunoreceptive to HBsAg by immunization against hepatitis B prior to feeding the animal the substance. material.
- 4. A method for boosting an immune response to hepatitis B surface antigen in a human previously having a positive response to primary immunization against hepatitis B which method comprises the human ingesting a substance comprising a physiologically acceptable plant material containing hepatitis B surface antigen.
- The method of claim 4 wherein the plant material is from a plant that has been genetically altered to express said antigen.



- 5/. The method of claim wherein the human ingests sufficient plant material to provide from about 2 to about 5 grams of plant material per kilogram of body weight of the human.
- The method of claim 5 wherein the human ingests said plant material a plurality of different times, said times being separated from each other by at least 5 days.
- 7 %. The method of claim is wherein the human ingests said plant material a plurality of different times, said times being separated from each other by at least 5 days.
- 10. The method of claim 1 wherein the human ingests said plant material a plurality of different times, said times being separated from each other by at least 5 days.
- The method of claim wherein the plurality of times is three times.
- The method of claim wherein the plurality of times is three times.



- The method of claim wherein the plant material is a material from a plant of the family solanaceae.
- The method of claim of wherein the plant material is a material from a plant of the family **S**olanaceae.
  - The method of claim 14' wherein the plant is a potato.
  - 17. The method of claim 1/2 wherein the plant is a potato.
  - The method of claim 14 wherein the plant is a tomato.
    - 19. A physiologically acceptable plant material containing hepatitis B surface antigen.
    - 20. The material of Claim 1 wherein the plant material is tuber material from a potato.